



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,386	12/27/2000	Takayuki Iida	Q62096	3789
7590	09/22/2004		EXAMINER JONES, DAVID	
SUGHRUE, MION, ZINN, MACPEAK & SEAS 2100 Pennsylvania Avenue, N.W. Washington, DC 20037			ART UNIT 2622	PAPER NUMBER

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/748,386	IIDA ET AL.
	Examiner	Art Unit
	David L Jones	2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 March 2001.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 38-40 is/are allowed.
- 6) Claim(s) 1-25,29-33 and 36 is/are rejected.
- 7) Claim(s) 26-28,34,35 and 37 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 January 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some*
 - c) None of:
 1. Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No. _____.
 - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/23/01</u> .	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 3/23/01 was filed after the filing date of the application on 112/27/00, but before the first action on the merits. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Amendment

3. The preliminary amendment filed on 12/27/2000 has been entered and made of record.

Drawings

4. The drawings are objected to because on page 66 of the specification lists the Mail Server 8E as 8M. Page 74, line 22, lists item 52, a display, as item 51. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from

the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: . Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claim 4 is objected to because of the following informalities: line 3 of the claim reads "an entire time period form the start", the word form is a misspelling of "from". Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-8 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Sekizawa (US 6,430,711).

Regarding claim 1, Sekizawa discloses a remote management method for performing remote management of a processor, which processes and outputs a processing object, comprising the steps of:

recording operation information (column 26, lines 35-60, fig. 10, S403) about contents of operation performed by the processor (Fig. 1, P(n)) during a preset time period or a preset number executions of processing existing between start of the operation of the processor and end of the operation;

forming an operation log (column 26, lines 35-60, fig. 10, #50) by combining the operation information recorded in the recording step; and transmitting (column 21, lines 31-36) the formed operation log to a remote management apparatus (fig. 1, #10) connected to the processor by a communication line (3a), wherein the remote management apparatus (column 26, lines 35-60) performs the remote management of condition of the processor based on the transmitted operation log.

Regarding claim 2, Sekizawa discloses (column 26, lines 44-48) a remote management method wherein an error log in which is recorded information about occurrences of errors having occurred in the processor during said preset time period or said preset executions of the processing existing between the start and the end of the operation of the processor is transmitted together with the operation log.

Regarding claim 3, Sekizawa discloses (column 23, lines 2-8) a remote management method where the forming step of the operation log and the transmitting step of the operation log to the remote management apparatus are performed at the end of the processor or by an instruction from an operator. As shown in fig. 4, step S010, the user has the option of inputting additional information as to the interval specification of how often the data is to be collected from each apparatus.

Regarding claim 4, Sekizawa discloses (column 23, lines 56-67, fig. 4, S012) a remote management method wherein the recorded operation information is operation information during an entire time period from the start and end of the operation of the processor; the user has the option of starting the automatic monitor program of which will monitor all operations of the devices being monitored.

Regarding claim 5, Sekizawa discloses (column 20, lines 58-67, and column 21, lines 1-8) a remote management method wherein one of the operation log and the error log is converted into binary data to be transmitted by electronic mail.

Regarding claim 6, Sekizawa discloses (column 28, lines 44-67, fig. 19) a remote management method wherein the operation log having the operation information recorded therein includes one of number of used times, a used time, and a used quantity of a component or a consumable article that is used in the processor, Sekizawa details items such as the amounts of the different colored inks, oil, drum life, etc.

Regarding claim 7, Sekizawa discloses (column 28, lines 44-67, fig. 19) a remote management method wherein the remote management apparatus performs management of one of a performance of the component and the amount of residual quantity of the consumable article according to a result of totalization of one of the number of used times, the used times, and the used quantity of the component or the consumable article which is included in the operation log transmitted.

Regarding claim 8, Sekizawa discloses (column 26, lines 48-60, fig. 10) a remote management method wherein the remote management apparatus transmits notification information to the processor if the need arises, as shown in figure 10, the printer controller checks the functions of printer.

Regarding claim 13, Sekizawa discloses (column 19, lines 3-14, fig. 1, P(n)) a remote management method wherein the processor comprises an image output apparatus which obtains, as input image data, image data from an image recording medium, and which processes the input image data by preset image processing to output one of output image data and an output image.

Art Unit: 2622

9. Claims 25- are rejected under 35 U.S.C. 102(b) as being anticipated by Carter et al. (US 5,038,319).

Regarding claim 25. Carter et al. (Carter) discloses (column 6, lines 3-55) a remote diagnostic method for performing remote diagnosis of an image output apparatus which obtains input image data, performs desired image processing on the input image data, and outputs at least one of an output image and output image data, comprising the steps of:

setting, (column 4, lines 47-68) as image data to be transferred, at least one of the input image data, image data on the output image, the output image data, and processed image data obtained when at least one of the output image and the output image data is obtained from the input image data;

setting, (column 4, lines 47-68) as information to be transferred, at least one of image processing component information acquired in a process of obtaining at least one of the output image and the output image data from the input image data, information on management of the image output apparatus and error occurrence information about occurrence of an error in the image output apparatus;

transferring (column 6, lines 3-55) the image data to be transferred and the information to be transferred to the remote diagnosis apparatus connected by using a communication line; and performing remote diagnosis of the image output apparatus in the remote diagnosis apparatus by using the transferred image data and the transferred information.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekizawa.

Regarding claim 14, Sekizawa teaches (column 26, lines 35-60) a remote management method wherein the image recording medium is a digital recording medium on which image data is recorded, Sekizawa teaches in column 28, lines 44-67, that the system monitors the total amounts of inks remaining (i.e. cyan, magenta, yellow, black), waste toner box use amount, oil remaining, total number of print sheets, and photosensitive unit remaining life. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that to be able to calculate utilizing the least squares method as taught in column 34, lines 23-55, the total amount of remaining of each would mean operating in a totalization method.

Regarding claim 15, Sekizawa teaches (column 26, lines 35-60) a remote management method wherein the image recording medium is a digital recording medium on which image data is recorded, Sekizawa teaches in column 28, lines 44-67, that the system monitors the total amounts of inks remaining (i.e. cyan, magenta, yellow, black), waste toner box use amount, oil remaining, total number of print sheets, and photosensitive unit remaining life and is being shown in the log of figure 19.

Regarding claim 16, Sekizawa teaches (column 26, lines 35-60) a remote management

Art Unit: 2622

method wherein the image recording medium is a digital recording medium on which image data is recorded, Sekizawa teaches in column 28, lines 44-67, that the system monitors the total amounts of inks remaining (i.e. cyan, magenta, yellow, black), waste toner box use amount, oil remaining, total number of print sheets, and photosensitive unit remaining life and is being shown in the log of figure 19. Sekizawa teaches the ability to keep track of all consumables, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that a user would be able to know from (column 34, lines 23-55) statistical data exact cost per usage to therefore charge a particular customer per image.

Regarding claim 17, Sekizawa discloses (column 19, lines 3-14, fig. 1, P(n)) a remote management method wherein the processor comprises an image output apparatus which obtains, as input image data, image data from an image recording medium, and which processes the input image data by preset image processing to output one of output image data and an output image. It would have been obvious to one of ordinary skill in the art at the time the invention was made that the system would include template sizes for use on an image.

Regarding claim 18, Sekizawa discloses (column 19, lines 3-14, fig. 1, P(n)) a remote management method wherein the processor comprises an image output apparatus which obtains, as input image data, image data from an image recording medium, and which processes the input image data by preset image processing to output one of output image data and an output image. It would have been obvious to one of ordinary skill in the art at the time the invention was made that the system would include template sizes for use on an image and that the information would have been sent over communication line 3a or 2.

Regarding claim 19, Sekizawa teaches (column 26, lines 35-60) a remote management system comprising:

a processor (P(n)) for processing and outputting a processing object; and

a remote management apparatus connected to the processor by a communication line,

said remote management apparatus performing remote management of the processor,

wherein the processor comprises:

it would have been obvious to one of ordinary skill in the art at the time the invention was made that each of the printers shown in figure 1, would have an input and output section to receive data from network 3a, and to perform required processing, and output the image data;

an information recording section (S403) for recording and holding operation information about contents of operation performed by the processor during a preset time period or a preset number of executions of processing existing between the start of the operation of the processor and end of the operation; and

a first control (fig. 10, S402) and connection device for forming an operation log (50) from the operation information recorded by the information recording section, said first control and connection device being connected to the remote management apparatus by the communication line to transmit the operation log, and

wherein the remote management apparatus comprises:

a second control (fig. 10, S304) and connection device connected to the processor by the communication line; and

remote management device (column 28, lines 44-67) for performing remote management of an operating condition of the processor by using the operation log transmitted from the second control and connection device.

Regarding claim 20, Sekizawa teaches (column 26, lines 35-60) a remote management system wherein the information recording section records and holds error occurrence information about occurrences of errors having occurred in the processor during said preset time period or preset number of executions of processing existing between the start and the end of the operation of the processor, and

wherein the first control and connection device forms (column 29, lines 67-68, and column 30, lines 1-15) an error log from the error occurrence information recorded by the information recording section, and transmits the error log and the operation log to the remote management apparatus.

Regarding claim 21, Sekizawa teaches (column 26, lines 35-60) a remote management system wherein said first control and connection device performs formation of the operation log and transmission of the operation log to the remote management apparatus at the end of the operation of the processor or by an instruction from an operator, the system can both send on a regular configuration setup by the user or can be asked for at any time frame needed.

Regarding claim 22, Sekizawa teaches (column 19, lines 3-14, fig. 1, P(n)) a remote management method wherein the processor comprises an image output apparatus which obtains, as input image data, image data from an image recording medium, and which processes the input image data by preset image processing to output one of output image data and an output image.

Art Unit: 2622

12. Claims 29-32 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al.

Regarding claim 29, Carter teaches (column 6, lines 3-55) a remote diagnostic method for performing remote diagnosis of an image output apparatus which obtains input image data, performs desired image processing on the input image data, and outputs at least one of an output image and output image data wherein the image output apparatus includes a print output section for recording on photographic or a heat development sensitive material, and

wherein the output image is image data converted to be adapted to the print output section. Carter teaches in column 4, lines 1-3, that the system can output copies and prints, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the system is producing heat sensitive materials, of which prints are.

Regarding claim 30, Carter teaches (column 6, lines 3-55) a remote diagnostic method for performing remote diagnosis of an image output apparatus which obtains input image data, performs desired image processing on the input image data, and outputs at least one of an output image and output image data wherein the image output apparatus includes print output section for recording on photographic printing paper or a heat development sensitive material, and an output reading section for reading an output image printed and outputted by the print output section, and wherein the output image is image data converted to be adapted to the print output section. Carter teaches in column 4, lines 1-3, that the system can output copies and prints, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the system is producing heat sensitive materials, of which prints are.

Wherein the output image data (column 3, lines 47-54) is image data read by the output image reading section (figure 2, #14).

Regarding claim 31, Carter teaches (column 6, lines 3-55) a remote diagnostic method for performing remote diagnosis of an image output apparatus which obtains input image data, performs desired image processing on the input image data, and outputs at least one of an output image and output image data wherein the output image reading section comprises a reflection-type scanner (fig. 2, #14).

Regarding claim 32, Carter teaches (column 6, lines 3-55) a remote diagnostic method for performing remote diagnosis of an image output apparatus which obtains input image data, performs desired image processing on the input image data, and outputs at least one of an output image and output image data wherein the scanner reads a print image and outputs a reproduced print image, as shown in figure 2, the image is scanned into scanner 14, then is output to finishing station F.

Regarding claim 36, Carter teaches (column 6, lines 3-55) remote diagnosis method for the image output apparatus, wherein the image data to be transferred and the information to be transferred are transferred over the communication line as a file attached to a piece of electronic mail. As taught by Carter the file can put on to a floppy disk as a file and then sent to the remote site, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to send the file to the diagnosis center as an attachment to the remote site for diagnosis as an attachment to an email.

13. Claims 9-12 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekizawa as applied to claims 1-8 and 13 above, and further in view of Carter et al. (US 5,038,319).

Regarding claim 9, Sekizawa teaches (column 26, lines 35-60) a remote management method, however Sekizawa does not explicitly detail upgrading the software of the device through the system.

Whereas, Carter et al. (Carter) teaches (column 4, lines 19-36) that the system includes additional ROM, RAM and Non-volatile memories resident in each printer, with each core printed wire board having a boot Rom 139 for controlling downloading of operating software.

Sekizawa and Carter are analogous art because they both are from the same field of endeavor, image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the software upgrade of Carter with the system of Sekizawa.

The suggestion/motivation for doing so would have been to provide Sekizawa with the ability to upgrade the software within the devices on the system and also allow for fault detection.

Therefore, it would have been obvious to combine Sekizawa with Carter to obtain the invention as specified in claim 9.

Regarding claim 10, Sekizawa teaches (column 26, lines 35-60) a remote management method wherein the remote management apparatus transmits notification information to the

processor if the need arises, as shown in figure 10, the printer controller checks the functions of printer, but Sekizawa does not explicitly teach analysis result being sent to the device.

Whereas, Carter teaches (column 6, lines 3-55, fig. 4) that the RIC utility enables a technician the ability to remotely interact with the device ascertain through an event logger and then to monitor actual machine information and to make changes to the device remotely if necessary.

Regarding claim 11, Sekizawa teaches (column 26, lines 35-60) a remote management method wherein the remote management apparatus transmits notification information to the processor if the need arises, as shown in figure 10, the printer controller checks the functions of printer, but Sekizawa does not explicitly teach analysis result being sent to the device.

Whereas, Carter teaches (column 6, lines 3-55, fig. 4) that the RIC utility enables a technician the ability to remotely interact with the device ascertain through an event logger and then to monitor actual machine information and to make changes to the device remotely if necessary.

Regarding claim 12, Sekizawa teaches (column 26, lines 35-60) a remote management method wherein the remote management apparatus transmits notification information to the processor if the need arises, as shown in figure 10, but Sekizawa does not explicitly teach sending to the device a date and time for remote interaction.

Whereas, Carter teaches (column 6, lines 3-55, fig. 4) that the RIC utility enables a technician the ability to remotely interact with the device ascertain through an event logger and then to monitor actual machine information and to make changes to the device remotely if necessary. And it would have been obvious to one of ordinary skill in the art at the time the

invention was made that before remote interaction that the operator of the printer would be notified ahead of time of the date and time the printer was to undergo diagnosis.

Regarding claim 23, Sekizawa teaches (column 26, lines 35-60) a remote management method wherein the remote management apparatus transmits notification information to the processor if the need arises, as shown in figure 10, the printer controller checks the functions of printer, but Sekizawa does not explicitly teach analysis result being sent to the device.

Whereas, Carter teaches (column 6, lines 3-55, fig. 4) that the RIC utility enables a technician the ability to remotely interact with the device ascertain through an event logger and then to monitor actual machine information and to make changes to the device remotely if necessary.

Regarding claim 24, Sekizawa teaches (column 26, lines 35-60) a remote management method wherein the remote management apparatus transmits notification information to the processor if the need arises, as shown in figure 10, the printer controller checks the functions of printer, but Sekizawa does not explicitly teach analysis result being sent to the device.

Whereas, Carter teaches (column 6, lines 3-55, fig. 4) that the RIC utility enables a technician the ability to remotely interact with the device ascertain through an event logger and then to monitor actual machine information and to make changes to the device remotely if necessary.

Allowable Subject Matter

14. Claims 26-28, 34-35, and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
15. Claims 38-40 are allowed.
16. The following is an examiner's statement of reasons for allowance:

“a remote diagnosis apparatus connected to the image output apparatus by a communication line, remote diagnosis of the image output apparatus being performed by using the remote diagnosis apparatus, wherein the image output apparatus comprises:

 - an image input section for obtaining the input image data;
 - an image processing section for performing image processing on the input image data;
 - an image output section for outputting the output image data and the output image from the image data processed by image processing performed by the image processing section;
 - a storage section for recording and holding at least one of the input image data, the image data obtained by the image processing section, the output image data on the output image, and at least one of image processing component information obtained by at least one of the image input section, the image processing section and the image output section, information on management of the image output apparatus, and error occurrence information on occurrence of an error having occurred in the image output apparatus; and a control and communication device for reading out the image data recorded and held in the storage section and corresponding to at least one of the output image data and the output image for forming image data to be transferred, by compositing

Art Unit: 2622

the read-out image data and at least one of the output image data and the Image data on the output image, for reading out at least one of the image processing component information, the management information and the error occurrence information recorded and held in the storage section and corresponding to at least one of the output image data and the output image, for setting the read-out information as information to be transferred, and for transferring the image data and the information to be transferred, the image data and the information being transferred to the remote diagnosis apparatus over the communication line, and wherein the remote diagnosis apparatus comprises:

communication device for establishing a connection to the image output line; and apparatus through the communication a remote diagnosis device for performing remote diagnosis of the image output apparatus by using the image data and the information transferred through the communication device”

The features identified, in combination with other claim limitations, are neither suggested nor discussed by the prior art of record.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kageyama (US 6,333,790) discloses a printing system-includes-a-network, and plurality of computers connected through the network connected to printer through the network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L Jones whose telephone number is (703) 305-4675. The examiner can normally be reached on Monday - Friday (7:00am - 3:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David L. Jones




EDWARD COLES
SUPERVISOR, PATENT EXAMINER
TECHNOLOGY CENTER 2600